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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/575,686

07/24/2006

Kenji Yoshisue

056272.57598US

3603

23911 7590 01/22/2009
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EXAMINER

QIN, JIANCHUN

ART UNIT

PAPER NUMBER

2837

MAIL DATE

DELIVERY MODE

01/22/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/575,686	Applicant(s) YOSHISUE ET AL.	
	Examiner JIANCHUN QIN	Art Unit 2837	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 December 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-6 is/are allowed.
- 6) ☒ Claim(s) 7-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 7-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshisue et al. (JP 2004226949, English translation) in view of kido et al. (U.S. Pat. No. 6051307) and Jones et al. (U.S. Pat. No. 5911167).

Regarding claim 7, Yoshisue teaches a repetition lever for a grand piano (Abstract and Drawings 1 and 4), which performs the operation of pushing up a hammer after the hammer has struck a string, wherein the repetition lever (5) is formed by carbon fiber (Abstract; sections 0011, 0014); wherein the repetition lever has a shank roller-pushing part (Drawings 1 and 4) having left and right wall parts (5d) which define

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a jack guide hole (Drawing 4) for guiding a jack (6a) and on which a shank roller (8) of the hammer rides (Drawing 1).

Yoshisue does not mention expressly: wherein the repetition lever is formed by a molded article of a thermoplastic resin containing long fibers for reinforcement, the molded article being molded by a long fiber process; and wherein the shank roller-pushing part has at an outer side surface thereof a marking line as a reference in adjusting an angular position of the jack.

kido et al. teach a technique for forming a molded article of a thermoplastic resin containing long fibers for reinforcement, the molded article being molded by a long fiber process (Abstract; col. 2, lines 40-57).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Yoshisue as taught by kido et al. to form the repetition lever by a molded article of a thermoplastic resin containing long fibers for reinforcement in order to provide a repetition lever excellent in appearance and mechanical strength (kido et al., col. 2, lines 55-57). The mere application of a known technique to a specific instance by those skilled in the art would have been obvious.

Jones et al. disclose a piano action assembly (Figs. 4A and 19), comprising a repetition lever having a shank roller-pushing part (Figs. 20 and 20A), wherein the shank roller-pushing part has at an outer side surface thereof a marking line (Fig. 20A, the upper or lower edge of the curved end of the slot which has a dimension 312) as a reference in adjusting an angular position of the jack (inherent function to the curved end of the slot).

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It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Yoshisue to form the repetition lever as taught by Jones et al. in order to provide an improved repetition lever that would improve the coupling between the jack and other parts of the action assembly and in turn the operational performance of the assembly (col. 2, lines 52-64).

Regarding claim 8, Yoshisue does not mention: wherein the long fibers have a length not shorter than 0.5 mm.

The teaching of kido et al. includes: wherein the long fibers have a length not shorter than 0.5 mm (Abstract).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Yoshisue as taught by kido et al. to form the repetition lever by a molded article of a thermoplastic resin containing long fibers for reinforcement in order to provide a repetition lever excellent in appearance and mechanical strength (kido et al., col. 2, lines 55-57).

Regarding claims 9-11, Yoshisue teaches: wherein the long fibers are carbon fibers (Abstract); wherein the thermoplastic resin is an ABS resin (sections 0031 and 0037); and wherein the repetition lever (5) has a reduced cross-sectional area portion for reducing weight thereof (Drawing 4; section 0025).

Allowable Subject Matter

4. Claims 1-6 are allowed.

Reasons for Allowance

5. The following is a statement of reasons for the indication of allowable subject matter:

The primary reason for the allowance of claims 1-6 is the inclusion of the limitation that the repetition lever has a shank roller-pushing part having left and right wall parts which define a jack guide hole for guiding a jack and on which a shank roller of the hammer rides, and wherein each of the left and right wall parts has left and right upper edges chamfered. It is this limitation found in each of the claims, as it is claimed in the combination that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

Response to Arguments

6. Applicant's arguments received 12/15/2008 with respect to claims 7-11 have been considered but are moot in view of the new ground(s) of rejection.

Claims 7-11 are rejected as new prior art reference (U.S. Pat. No. 5911167 to Jones et al.) has been found to teach, in combination with other cited prior art references, the claimed invention recited in these claims. Detailed response is given in section 3 as set forth above in this Office action.

Contact Information

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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jianchun Qin whose telephone number is (571) 272-5981. The examiner can normally be reached on 8am - 5:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Walter Benson can be reached on (571) 272-2227.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JIANCHUN QIN/

Examiner, Art Unit 2837